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स्नेहन कनेक्टर — विशिष्टि  
( दूसरा पुनरीक्षण )

**Lubricating Connectors —  
Specification**  
( Second Revision )

ICS 21.260

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## FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Lubricating Equipment Sectional Committee had been approved by the Production and General Engineering Division Council.

This standard was first published in 1970 and subsequently revised in 1984. The experience gained in implementation of the standard has necessitated this revision.

Lubricating connectors are essential fittings screwed on to the delivery tube of grease guns. They engage on lubricating nipples and prevent leakage of the lubricant during delivery into the grease nipples.

This standard deals with the requirements for four types of connectors, namely, 'hydraulic', 'hook-on', 'thrust-on' and 'push' type of connectors. Hydraulic type connectors are used for servicing conical head grease nipples conforming to IS 4009 (Part 2) : 1981 'Specification for grease nipples: Part 2 Conical head grease nipples (*first revision*)'. They snap on to the tip of the grease nipples where it is held by three hydraulic jaws during the delivery of lubricant, and easily released with a light lateral movement once the delivery operation is over. The 'hook-on' and 'thrust-on' type connectors are used for servicing button-head grease nipples conforming to IS 4009 (Part 1) : 1981 'Specification for grease nipples: Part 1 Button head grease nipples (*first revision*)'. They have double flanged shoes which slide on the heads of button-head grease nipples. The 'thrust-on' connectors incorporate a swivel joint to facilitate servicing of awkwardly placed nipples. The 'push' type connectors are used to service grease nipples, small, Type 'D' conforming to IS 4009 (Part 2) : 1981. The seal between the grease nipple and the connector is achieved by manual in-line pressure on the nipple head.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# *Indian Standard*

## LUBRICATING CONNECTORS — SPECIFICATION

### ( *Second Revision* )

#### 1 SCOPE

This standard covers the requirements for four types of lubricating connectors for use in industrial plants and automobiles.

#### 2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

<i>IS No.</i>	<i>Title</i>
554 : 1999	Pipe threads where pressure-tight joints are made on the threads — Dimensions, tolerances and designation ( <i>fourth revision</i> )
1367 (Part 3) : 2017	Technical supply conditions for threaded steel fasteners: Part 3 Mechanical properties of fasteners made of carbon steel and bolts, screws and studs ( <i>fifth revision</i> )
1501 (Part 1) : 2013	Metallic materials — Vickers hardness test: Part 1 Test method ( <i>fourth revision</i> )
1573 : 1986	Specification for electroplated coatings of zinc on iron and steel ( <i>second revision</i> )
4218 (Part 1) : 2001	ISO general purpose metric screw threads: Part 1 Basic profile ( <i>second revision</i> )
4905 : 2015	Random sampling and randomization procedures ( <i>first revision</i> )
9466 : 1980	Viscosity classification for industrial liquid lubricants

#### 3 TYPES

This standard covers four types of connectors:

- a) *Type A* — Hydraulic connector
- b) *Type B* — Hook-on connector

c) *Type C* — Thrust-on connector

d) *Type D* — Push type connector

#### 4 DIMENSIONS

4.1 The dimensions of connectors shall be as given in Fig. 1.

4.2 The threads on the connectors shall have ISO metric profile conforming to IS 4218 (Part 1). Alternatively, threads shall conform to IS 554.

#### 5 MATERIAL

The connectors shall be manufactured from sheet conforming to the property class 4.8 of IS 1367 (Part 3).

#### 6 DESIGNATION

A connector is designated by words ‘Connector’ followed by A or B or C or D for type and followed by IS number. Thus Type A connector shall be designated as:

Connector A IS 5664

#### 7 WORKMANSHIP AND FINISH

7.1 The lubricating connectors shall be finished smooth and shall be free from burrs, cracks and other manufacturing defects. The threads shall be cleanly formed and shall be free from imperfections.

7.2 The connectors shall be plated with zinc (*see* IS 1573). Surfaces of the connectors which are in sliding contact with grease nipples shall be hardened to a minimum value of 550 *HV* [*see* IS 1501 (Part 1)].

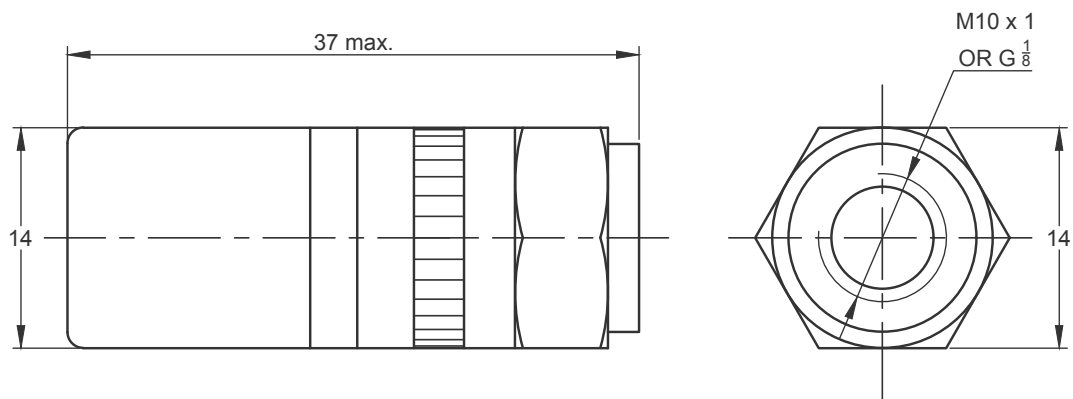
#### 8 MARKING

8.1 Each connector shall be marked with the type, manufacturer’s name or trade-mark.

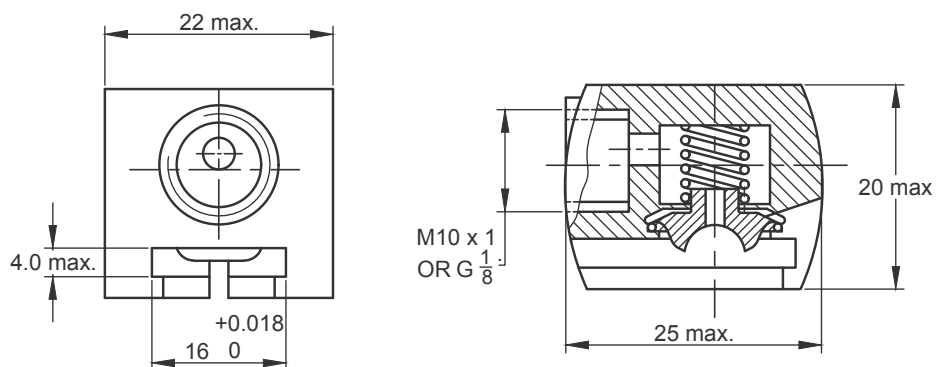
##### 8.2 BIS Certification Marking

The lubricating connectors may also be marked with the Standard Mark.

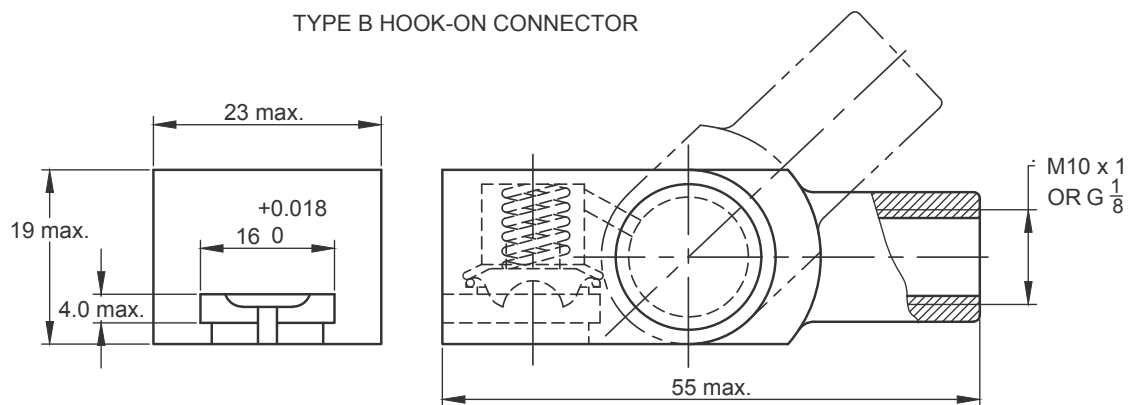
8.2.1 The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the standard mark.



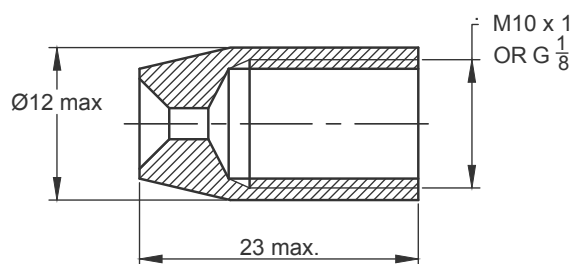
TYPE A HYDRAULIC CONNECTOR



TYPE B HOOK-ON CONNECTOR



TYPE C THRUST-ON CONNECTOR



TYPE D PUSH CONNECTOR

All dimensions in millimetres

NOTE — Minimum disengaging angle is 35°

FIG. 1 LUBRICATING CONNECTORS

## 9 PACKING

Connectors shall be packed in accordance with the best prevalent trade practice or as specified by the purchaser.

## 10 SAMPLING

Unless otherwise agreed to between the purchaser and the supplier, the sampling plan as given in Annex A shall be followed.

## 11 TEST

The lubricating connectors other than Type D, when applied on the appropriate mating grease nipples, shall not leak from any joint or sealing surface when subjected to a pressure of 15 MPa with ISO viscosity grade 'ISO VG 2' grease (*see* IS 9466). For Type D connectors, there shall be no leakage from sealing surface in operation.

**ANNEX A**

( Clause 10 )

**SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY****A-1 SCALE OF SAMPLING****A-1.1 Lot**

In any consignment all the lubricating connectors of the same size and type and manufactured under essentially similar conditions shall constitute a lot.

**A-1.2** For ascertaining the conformity of the lot to the requirements of this specification tests shall be carried out for each lot separately. The number of lubricating connectors to be selected at random from each lot shall be in accordance with col 1 and col 2 of Table 1. To ensure the randomness of selection, IS 4905 shall be followed.

**A-2 NUMBER OF TESTS AND CRITERIA FOR CONFORMITY**

**A-2.1** The connectors selected according to **A-1.2** shall be examined for dimensions, and workmanship and

finish. Any connector failing to satisfy the requirements for any one or more of the characteristics shall be declared defective.

**A-2.1.1** The lot shall be declared conforming to the requirements for the characteristics given in **A-2.1** if the number of connectors found defective is less than or equal to the corresponding number given in col 3 of Table 1.

**A-2.2** In case the lot is found satisfactory according to **A-2.2.1**, a sub-sample of size given in col 4 of Table 1 shall be drawn and subjected to test given in **11**. Any connector failing to meet the requirement shall be considered defective.

**A-2.2.1** The lot shall be declared conforming to the requirements if the number of connectors found defective according to **A-2.2** is less than or equal to the corresponding number given in col 5 of Table 1.

**Table 1 Sample Size and Permissible Number of Defectives**

Lot Size	Sample Size	Permissible Number of Defectives	Sub-Sample Size	Permissible Number of Defectives
(1)	(2)	(3)	(4)	(5)
Up to 100	8	0	3	0
101 to 150	13	0	5	0
151 to 300	20	0	8	0
301 to 500	32	1	13	0
501 to 1 000	50	2	20	0
1 001 to 3 000	80	3	32	1
3 001 and above	125	5	50	1



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This Indian Standard has been developed from Doc No.: PGD 19 (1387).

### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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